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* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	NOV 21	CAS patent coverage to include exemplified prophetic substances identified in English-, French-, German-, and Japanese-language basic patents from 2004-present
NEWS	3	NOV 26	MARPAT enhanced with FSORT command
NEWS	4	NOV 26	CHEMSAFE now available on STN Easy
NEWS	5	NOV 26	Two new SET commands increase convenience of STN searching
NEWS	6	DEC 01	ChemPort single article sales feature unavailable
NEWS	7	DEC 12	GBFULL now offers single source for full-text coverage of complete UK patent families
NEWS	8	DEC 17	Fifty-one pharmaceutical ingredients added to PS
NEWS	9	JAN 06	The retention policy for unread STNmail messages will change in 2009 for STN-Columbus and STN-Tokyo
NEWS	10	JAN 07	WPIDS, WPINDEX, and WPIX enhanced Japanese Patent Classification Data
NEWS	11	FEB 02	Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS	12	FEB 02	GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS	13	FEB 06	Patent sequence location (PSL) data added to USGENE
NEWS	14	FEB 10	COMPENDEX reloaded and enhanced
NEWS	15	FEB 11	WTEXTILES reloaded and enhanced
NEWS	16	FEB 19	New patent-examiner citations in 300,000 CA/Caplus patent records provide insights into related prior art
NEWS	17	FEB 19	Increase the precision of your patent queries -- use terms from the IPC Thesaurus, Version 2009.01
NEWS	18	FEB 23	Several formats for image display and print options discontinued in USPATFULL and USPAT2
NEWS	19	FEB 23	MEDLINE now offers more precise author group fields and 2009 MeSH terms
NEWS	20	FEB 23	TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms
NEWS	21	FEB 23	Three million new patent records blast AEROSPACE into STN patent clusters
NEWS	22	FEB 25	USGENE enhanced with patent family and legal status display data from INPADOCDB
NEWS	23	MAR 06	INPADOCDB and INPAFAMDB enhanced with new display formats

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 13:39:20 ON 08 MAR 2009

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 13:39:39 ON 08 MAR 2009

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 6 MAR 2009 HIGHEST RN 1116745-20-0

DICTIONARY FILE UPDATES: 6 MAR 2009 HIGHEST RN 1116745-20-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

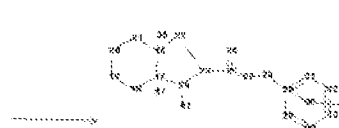
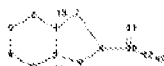
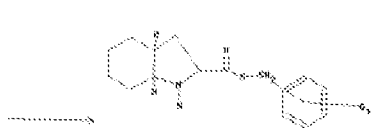
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\STNEXP\Queries\10599918 protection of I R defined.str



```

chain nodes :
10 11 12 13 14 15 25 26 27 34 36 37 41 42 44
ring nodes :
1 2 3 4 5 6 7 8 9 16 17 18 19 20 21 22 23 24 28 29 30 31 32
33
chain bonds :
1-13 2-14 8-10 9-15 10-11 10-12 12-42 16-36 17-37 23-25 24-41 25-26 25-
27
27-34
ring bonds :
1-2 1-6 1-7 2-3 2-9 3-4 4-5 5-6 7-8 8-9 16-17 16-21 16-22 17-18 17-24
18-19 19-20 20-21 22-23 23-24 28-29 28-33 29-30 30-31 31-32 32-33
exact/norm bonds :
2-9 8-9 17-24 23-24 25-26 25-27
exact bonds :
1-2 1-6 1-7 1-13 2-3 2-14 3-4 4-5 5-6 7-8 8-10 9-15 12-42 16-17 16-21
16-22 16-36 17-18 17-37 18-19 19-20 20-21 22-23 23-25 24-41 27-34
normalized bonds :
10-11 10-12 28-29 28-33 29-30 30-31 31-32 32-33
isolated ring systems :
containing 1 : 16 :

```

G1:O,NO2,X

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom
22:Atom 23:Atom 24:Atom 25:CLASS 26:CLASS 27:CLASS 28:Atom 29:Atom 30:Atom
31:Atom
32:Atom 33:Atom 34:CLASS 35:Atom 36:CLASS 37:CLASS 41:CLASS 42:CLASS
44:CLASS 45:Atom
fragments assigned product role:
containing 16
fragments assigned reactant/reagent role:
containing 1

```

L1 STRUCTURE UPLOADED

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=> d L1
L1 HAS NO ANSWERS
L1 STR
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

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Structure attributes must be viewed using STN Express query preparation.

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=> file casreact
COST IN U.S. DOLLARS
FULL ESTIMATED COST
SINCE FILE ENTRY 0.48
TOTAL SESSION 0.70

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FILE 'CASREACT' ENTERED AT 13:40:07 ON 08 MAR 2009
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FILE CONTENT:1840 - 2 Mar 2009 VOL 150 ISS 10

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*****
*
*      CASREACT now has more than 16.5 million reactions      *
*
*****
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CASREACT contains reactions from CAS and from: ZIC/VINITI database (1974-1999) provided by InfoChem; INPI data prior to 1986; Biotransformations database compiled under the direction of Professor Dr. Klaus Kieslich; organic reactions, portions copyright 1996-2006 John Wiley & Sons, Ltd., John Wiley and Sons, Inc., Organic Reactions Inc., and Organic Syntheses Inc. Reproduced under license. All Rights Reserved.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s L1 SSS full

FULL SEARCH INITIATED 13:40:10 FILE 'CASREACT'

SCREENING COMPLETE - 633 REACTIONS TO VERIFY FROM 82 DOCUMENTS

100.0% DONE 633 VERIFIED 3 HIT RXNS 3 DOCS
SEARCH TIME: 00.00.02

L2 3 SEA SSS FUL L1 (3 REACTIONS)

=> d ibib abs fhit 1-

YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y

L2 ANSWER 1 OF 3 CASREACT COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 148:55381 CASREACT Full-text

TITLE: Process for the preparation of perindopril and intermediates thereof

INVENTOR(S): Haider, Akhtar; Megevand, Sophie; Nicollier, Brigitte; Pannatier, Yvan

PATENT ASSIGNEE(S): Sochinaz SA, Switz.

SOURCE: Eur. Pat. Appl., 19pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

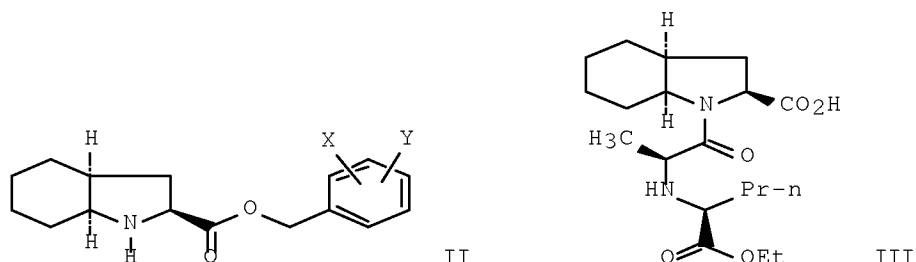
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

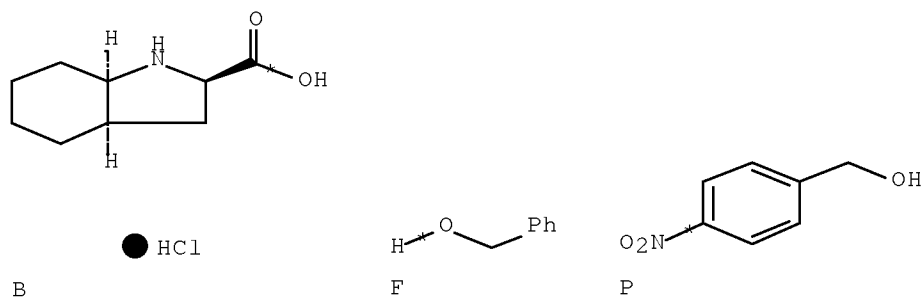
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1864973	A1	20071212	EP 2006-11981	20060609
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,				

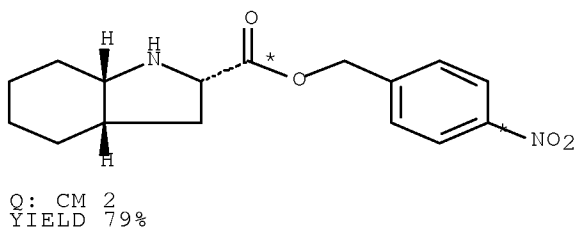
BA, HR, MK, YU
 PRIORITY APPLN. INFO.: EP 2006-11981 20060609
 OTHER SOURCE(S): MARPAT 148:55381
 GI



AB The invention provides a novel method for the synthesis of (2*S*,3*aS*,7*aS*)-octahydroindole-2-carboxylic acid (I) and its aryl esters II [wherein X, Y = H, halo, alkyl, alkoxy or nitro group], and the conversion of the p-nitrobenzyl ester of the acid into perindopril or its salts. II were obtained via esterification of racemic octahydroindole-2-carboxylic acid hydrochloride with benzyl alcs. in the presence of aryl sulfonic acids such as p-TsOH, followed by resolution with such as dibenzoyl-(L)-tartaric acid. Alternatively, II could be synthesized directly by esterification of chiral I with benzyl alcs. For example, I was reacted with p-nitrobenzyl alc. in the presence of p-TsOH to afford p-tosylate salt of the corresponding ester in 79% yield, which underwent DCC/HOBt-mediated coupling reaction with N-[(*S*)-1-(ethoxycarbonyl)butyl]-(*S*)-alanine in dichloromethane (80% yield). Pd/C-catalyzed hydrogenolysis of the resultant p-nitrobenzyl ester led to perindopril.

RX(13) OF 21 COMPOSED OF RX(2), RX(3), RX(4)
 RX(13) B + F + P + H ==> Q





RX(2) RCT B 84324-13-0, F 100-51-6
 RGT H 104-15-4 TsOH
 PRO G 959984-63-5
 SOL 108-88-3 PhMe
 CON SUBSTAGE(2) 25 - 30 deg C

RX(3) RCT G 959984-63-5

STAGE(1)

RGT K 1310-73-2 NaOH
 SOL 7732-18-5 Water
 CON room temperature, pH 10.5

STAGE(2)

RGT L 2743-38-6 Butanedioic acid, 2,3-bis(benzoyloxy)-,
 (2R,3R)-
 CON 1 hour, room temperature

STAGE(3)

RGT M 7647-01-0 HCl
 SOL 67-56-1 MeOH
 CON SUBSTAGE(2) 1 hour, 0 - 5 deg C

PRO J 86647-57-6
 NTE stereoselective

RX(4) RCT J 86647-57-6, P 619-73-8, H 104-15-4
 PRO Q 959984-64-6
 SOL 108-88-3 PhMe
 CON 3 hours, reflux

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

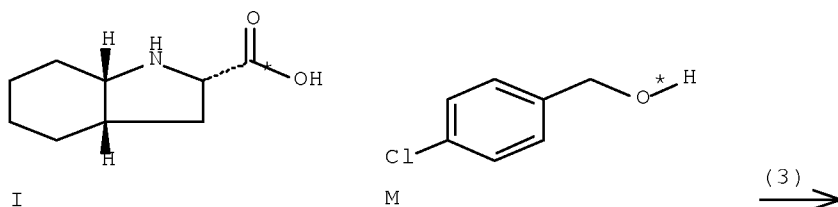
ACCESSION NUMBER: 143:367597 CASREACT Full-text
 TITLE: Process for the preparation of perindopril
 INVENTOR(S): Kankan, Rajendra Narayanrao; Rao, Dharmaraj
 Ramachandra
 PATENT ASSIGNEE(S): Neopharma Limited, UK
 SOURCE: Brit. UK Pat. Appl., 21 pp.
 CODEN: BAXXDU
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2413128	A	20051019	GB 2004-8258	20040413
AU 2005232938	A1	20051027	AU 2005-232938	20050407
CA 2562843	A1	20051027	CA 2005-2562843	20050407
WO 2005100317	A1	20051027	WO 2005-GB1355	20050407
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1751107	A1	20070214	EP 2005-732439	20050407
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR				
JP 2007532616	T	20071115	JP 2007-507836	20050407
IN 2006DN06462	A	20070831	IN 2006-DN6462	20061101
KR 2007054142	A	20070528	KR 2006-723684	20061113
US 20070185335	A1	20070809	US 2007-599918	20070409
PRIORITY APPLN. INFO.:			GB 2004-8258	20040413
			WO 2005-GB1355	20050407

OTHER SOURCE(S): MARPAT 143:367597

AB A process for preparing perindopril or a pharmaceutically-acceptable salt comprises coupling a 4-halo-, 4-alkoxy- or 4-nitrobenzyl ester of (2S,3aS,7aS)-2-carboxyoctahydroindole with N-[(S)-1-carbethoxybutyl]-L-alanine (1) in the presence of DCC and HOBT, followed by catalytic hydrolysis. The starting ester was obtained from (S)-indoline-2-carboxylic acid by hydrogenation-esterification and 1 was obtained from norvaline Et ester and pyruvic acid under catalytic hydrogenation conditions. The method was applied to the synthesis perindopril erbumine (20.5 g obtained from 24 g 4-chlorobenzyl ester and 21.26 g 1).

RX(3) OF 10 ...I + M ==> N...



RX(3) RCT I 80875-98-5, M 873-76-7
 RGT O 104-15-4 TsOH
 PRO N 793716-54-8
 SOL 108-88-3 PhMe
 CON reflux

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 3 OF 3 CASREACT COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 141:411226 CASREACT [Full-text](#)
 TITLE: Process for preparation of perindopril and its salts
 INVENTOR(S): Kankan, Rajendra Narayanrao; Rao, Dharmaraj Ramachandra
 PATENT ASSIGNEE(S): Cipla Limited, India; Wain, Christopher Paul
 SOURCE: PCT Int. Appl., 26 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004099138	A2	20041118	WO 2004-GB2029	20040512
WO 2004099138	A3	20041223		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,

SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

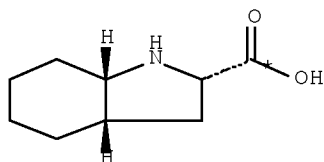
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PRIORITY APPLN. INFO.: IN 2003-MU468 20030512

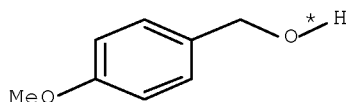
OTHER SOURCE(S): MARPAT 141:411226

AB A process for preparing perindopril or a pharmaceutically-acceptable salt comprises esterifying (2S,3aS,7aS)-octahydro-1H-indole-2-carboxylic acid (I) with benzyl alc. (or the 4-chloro or 4-alkoxy derivative) in the presence of benzenesulfonic acid as catalyst, treating the intermediate ester benzenesulfonate with N-[(S)-1-carbethoxybutyl]-L-alanine (II), and ester cleavage. Thus, I benzyl ester benzenesulfonate (40 g) was prepared, its suspension in CH₂Cl₂ made alkaline with aqueous ammonia, and the organic layer separated Treatment with II at 10-15 °C in the presence of hydroxybenzotriazole and N,N'-dicyclohexylcarbodiimide and workup afforded 43 g perindopril benzyl ester.

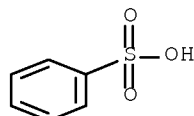
RX(6) OF 10 A + U + C ==> V



A

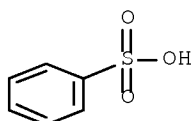


U

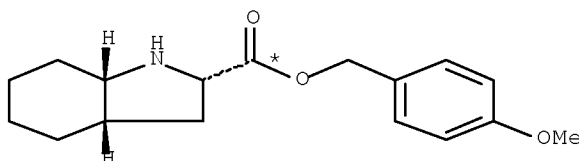


C

(6) →



V: CM 1



V: CM 2

RX(6) RCT A 80875-98-5, U 105-13-5, C 98-11-3

PRO V 793716-59-3

SOL 108-88-3 PhMe

CON 10 hours, reflux

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> log off

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

STN INTERNATIONAL LOGOFF AT 13:41:06 ON 08 MAR 2009